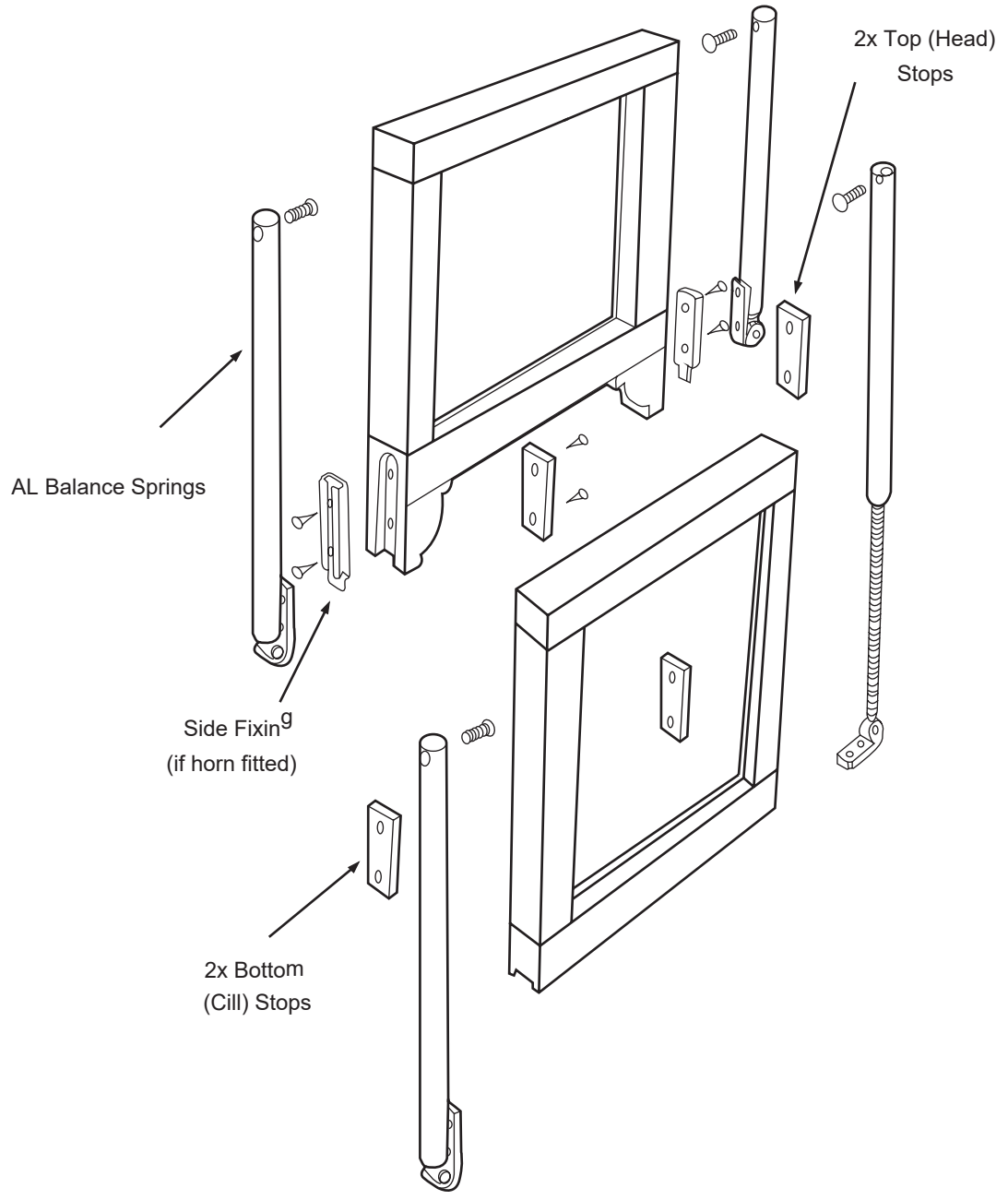
# Sash Balance Installation

## Type AL - Assisted Lift V2 & V3

It is recommended that the sashes are glazed and painted to ensure both sashes slide freely in the frame.

Exploded sash window view




**NOTE:** Read instructions fully before installing balances. It is recommended that before balances are installed the sashes are glazed and in the case of timber windows all painting is completed ensuring that both sashes slide freely in the frame. While sketches show timber windows throughout, fitting instructions apply to all types.

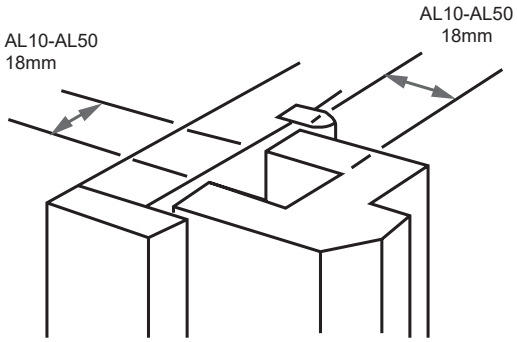
Preparation of the window

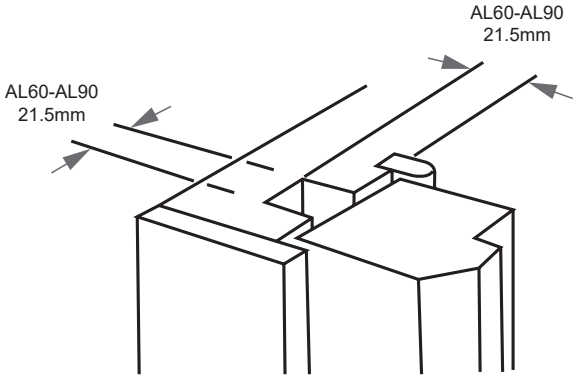
## 1) Groove dimensions

Provision must be made to house each balance in a groove or channel which can be either in frame jamb or sash stile and must be minimum dimensions shown above.

The groove must run the full length of the sash run. Bottoms of sashes should be prepared to suit balance foot attachment to be used. Cut-outs to be of sufficient depth to receive attachments and screw heads.

Typically diagram **2a** is prep work for the bottom sash and diagram **2b** is for the top sash. However if you wish to hide all visible fittings follow diagram **2b** for both sashes.




## 2) Checking the balances

It is important that the balances used are suitable for the weight of the sash. The relevant weight in lbs is printed on the tube and on the accompanying paperwork.

Check that the glazed sash weight is within 1lbs (0.5kg) of the figure that is shown on the side of the balance.

**FIG 2a**

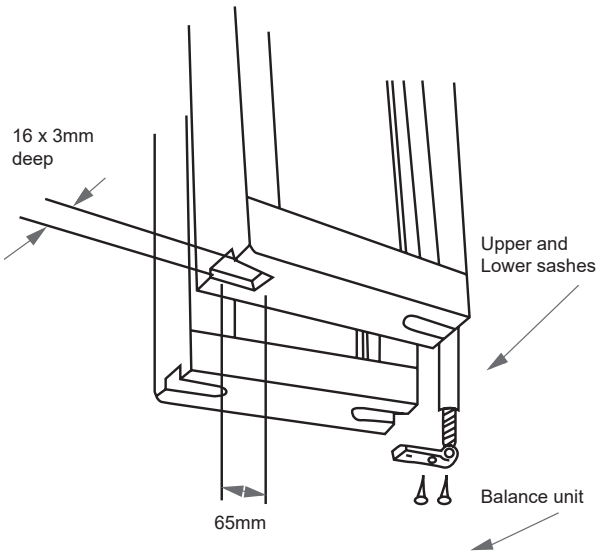
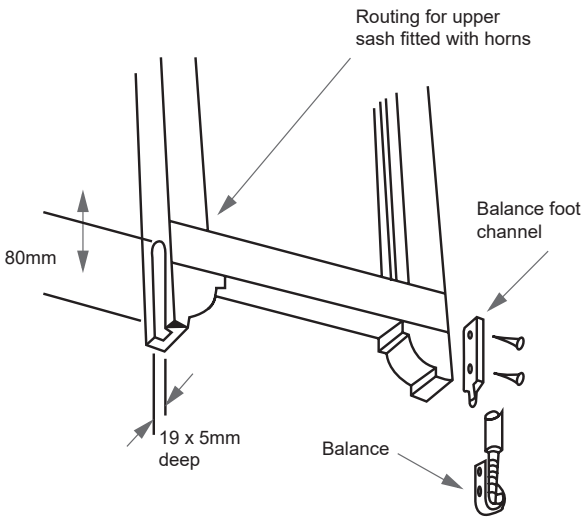



**FIG 2b**



## 3) Standard method

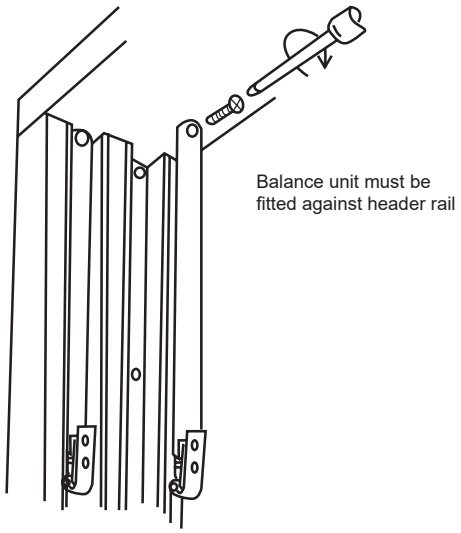
Note that the shorter pair of balances is normally for the top sash, given sashes of equal height. With the sashes lowered, insert the appropriate pair of balances into the grooves. In the case of unequal size sashes it is possible to slightly bow the balance for insertion into the groove of the larger sash. In some cases, larger sashes may have to be removed.

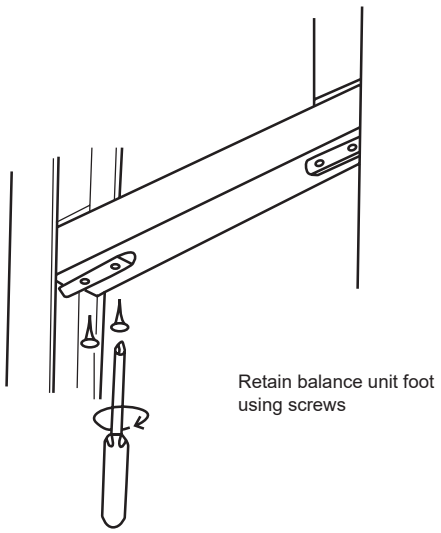
Fit the top of the balances to the frame jamb at the centre of the groove tight up against the frame head, with the flat of the foot attachment against the jamb. Fix using wood screws provided.

To attach balances to sashes, firstly raise the sashes as high as possible and prop in position. The foot attachment at the bottom of each balance should now be visible. An installation tool is available to assist in pulling the balance down when fitting.

Now fold the foot attachment under the bottom rail of the sash.

Using the wood screws provided, fix the foot attachment to the underside of the bottom rail, ensuring that the balance is kept tight to the sash.



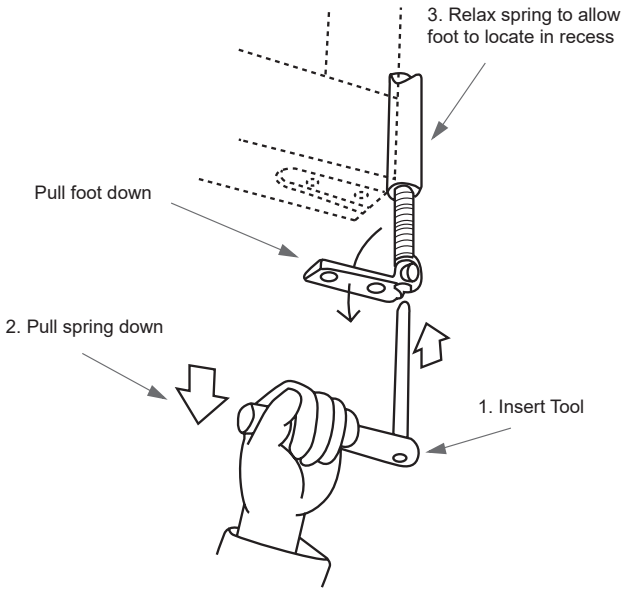

## 4) Alternate method - Non-Horned Sash

**For unequal sashes, very heavy sashes.**

Before inserting balances into groove you can insert an installation tool (available) into the brass thread at the bottom of the balance.

Proceed as previously described, using the tool, pull the foot attachment downwards and across under the bottom rail of the sash. Fix using wood screws provided before fully tightening screws, carefully remove the adjustment tool.

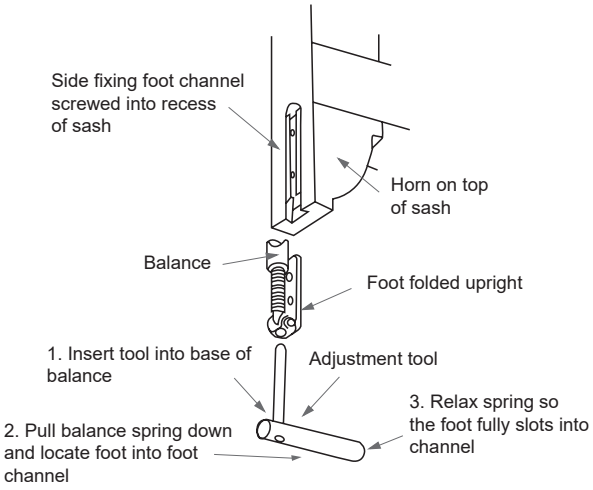
**Note:** when using adjustment tool pull spring down from tube, do not twist or turn spring.



## 5) Alternative method - Horned sash

For sashes with horns, using the standard horn channel attachments and use the tool to pull the balance foot down so that it can be located into the bottom of the channel and then carefully released.

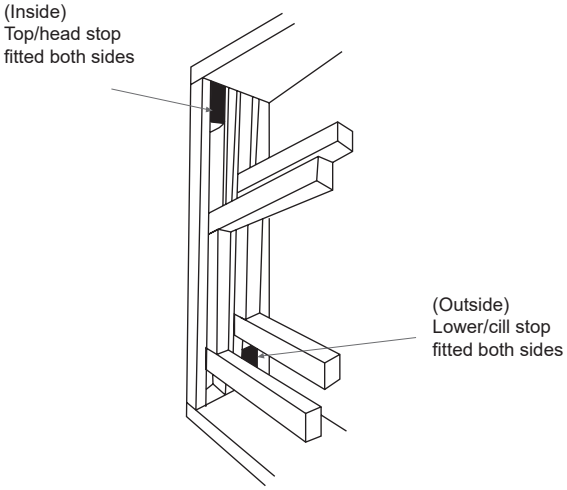
Carefully remove the adjustment tool.




## 6) Fixing the travel stops

Fix travel stops provided, the shorter one at the top of the window at the head, the longer one at cill.
In the case of non-standard applications special stop may be required. In such cases suitable longer timber stops should be substituted for the standard metal type supplied These should be long enough to prevent the balance from being extended by more than twice its tube length minus 2 inches.

**IMPORTANT - FAILURE TO FIT TRAVEL STOPS MAY RESULT IN BALANCE FAILURE**





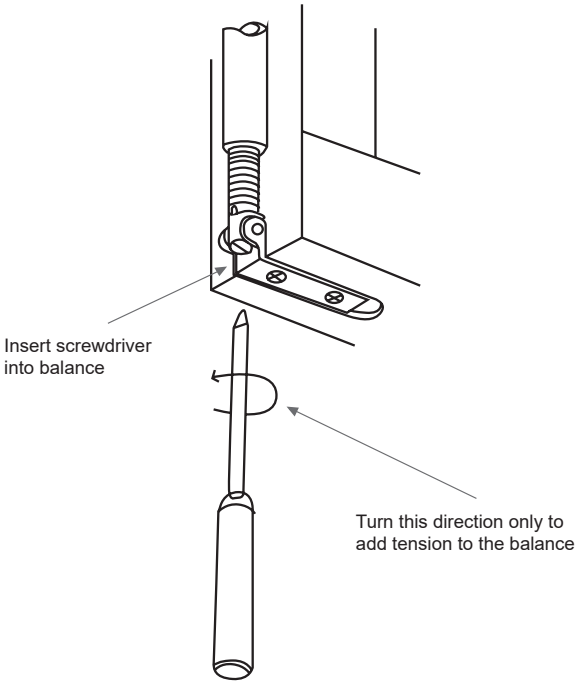

## 7) Adjustment

Try the sashes up and down TO THE LIMIT OF THEIR TRAVEL.

If there is a tendency for either sash to drop when in the up position, adjust the balances as follows:
A screwdriver can now be inserted in the slot in the ratchet fitting at the bottom of the balance.

Adjust by turning the ratchet in an anti-clockwise direction as viewed from underside. Two ‘clicks’ of the ratchet equal one complete turn. Ensure that the same number of turns that are applied to each balance pair.

**Note:** Do not over tension




## 8) Important information

Don’t use balances on sashes beyond their respective weight.

Don’t tension balances more than necessary. Don’t tension balances before glazing. Do keep the foot attachment tight into the sash and make sure that the covers of the fitting do not rub the jamb when the sash is moved. Do fit correct travel stops.

Technical specifications

## Tube and groove

**V2/V3 AL10-50**
Tube diameter: 17mm
Groove dimension: 18mm

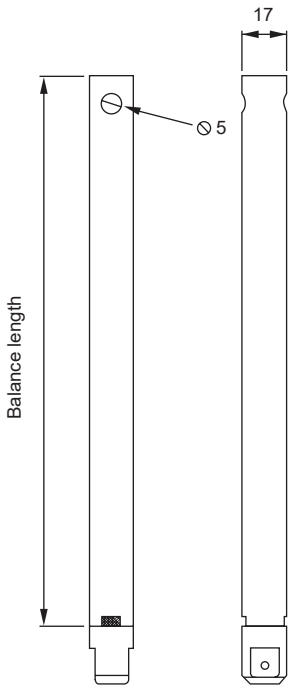
**V2/V3 AL60-90**
Tube diameter: 19mm
Groove dimension: 21.5mm

## Sash weight range

**V2/V3 AL10-50**
3.6Kg (8Lbs) - 26.7Kgs (59lbs)

**V2/V3 AL60-90**
27.2Kg (60Lbs) - 40.8Kgs (90lbs)

**V2/V3 AL10-50**




**V2/V3 AL60-90**

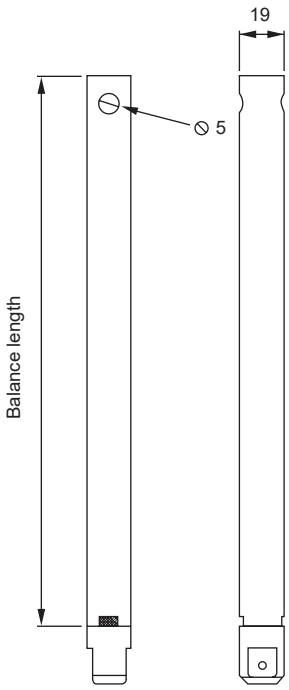



Diagram not to scale
All dimensions are in mm and are nominal

Contact Name:

Company:

Address:

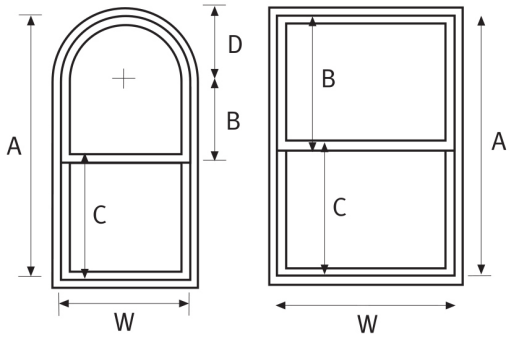
Tel No: Postcode:

Email:

Delivery Address (if different from above):

Postcode:

'A' must be less than 'B' + 'C'




| | DETAILS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | WINDOW QTY | A | W | B | C | D | SIZE OF HORN | GLASS TYPE | GLAZED WEIGHT TOP | GLAZED WEIGHT BOTTOM | CUSTOMER REFERENCE |
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
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| 10 | | | | | | | | | | | |

PLEASE TICK AS APPROPRIATE — SASH BALANCE ORDER ☐ | SASH BALANCE QUOTATION ☐ | WEIGHT ORDER ☐ | WEIGHT QUOTATION ☐

| PRODUCT CODE | DESCRIPTION | QUANTITY |
|---|---|---|
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| 6 MM RED SPOTTED CORD | 8MM RED SPOTTED CORD | 6MM WAXED CORD | | | 8MM WAXED CORD | | | 6MM NYLON CORD | | | 8MM NYLON CORD | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QUANTITY REQUIRED | QUANTITY REQUIRED | QUANTITY REQUIRED | | | QUANTITY REQUIRED | | | QUANTITY REQUIRED | | | QUANTITY REQUIRED | | |
| 50m | 50m | 15m | 50m | 100m | 15m | 50m | 100m | 20m | 50m | 100m | 20m | 50m | 100m |
| | | | | | | | | | | | | | |

Fax to Mighton Products at: **0800 581 703** Email: **sales@mighton.co.uk**